

# Quick Guide

*Getting the most  
out of your XF105*



**DAF**



# ***DAF XF105: The ultimate driver's truck***

The DAF XF105 has been designed for optimum efficiency, safety and comfort. Enjoy your drive with the XF105.

Please read the instructions and tips in this guide to ensure that you quickly feel at ease and will be getting the most out of your XF105, while you are on your way.

## ***1. A quick start with your XF105***

A visual overview with short instructions of major vehicle controls.

## ***2. Getting the most out of your XF105***

Short tips and facts on how to get the best economic performance (e.g fuel consumption, low maintenance intervals) and physical performance (e.g. torque ) out of the XF105.

## ***3. AdBlue in practice***

What you should know about AdBlue and how to use it.

\* Note that specific vehicle configurations may differ from these instructions.

Full details are available in the driver's handbook.

\* Content of this quick guide applies to edition 2009 vehicles.





*A quick start  
with  
your XF105*



### Door controls

- 1 Mirror control, select and adjust.
- 2 Heating on all four mirrors, on/off.
- 3 Window control left/right, with express up/down (activate 0,5 sec) opens automatically window fully.



### Master display

- 1 Information bar with status of warnings, alarm, AS-Tronic gear, cruise-/down hill speed control and telephone.
- 2 Information screen (red, yellow warnings). Press Menu Selector Switch to access main menu. Scroll and press to select.



### Menu Selector Switch

Press to access main menu.  
Scroll and press to select.

### Menu contains among others:

• vehicle info	• fuel consumption
• warnings	• boost pressure
• trip info	• next service
• settings	• PTO counter



### Remote control

Setting chassis height, with 2 memory settings and automatic setting of driving height.

Version with Axle Load Monitoring:

- Also calibration of axle load values (preferably 1/year).



### Steering column switch (left)

Centre position (dipped beam, lights on).

- 1 Headlight flash.
- 2 Main beam.
- 3 Direction indicator left/right.
- 4 Horn.
- 5 Windscreen washer.
- 6 Windscreen wiper.  
--- Intermittent wipe  
(interval time set by on, time off, on).  
0, 1, 2 Wipers off, low- and high speed.



### Steering wheel switch (left)

- 1 **Top:** accept call.  
**Bottom:** end or reject call.
- 2 **Select driving:** 1 of last 10 calls.  
**Whilst calling:** adjust volume.  
**Select stationary:** listing phonebook.
- 3 **Downhill speed control**  
**Set:** current speed set for descent.  
**Set on flat road with cruise control on:** cruise speed + 3 kmh.



### Steering wheel switch (right)

- 4 Variable vehicle speed limiter  
**Top:** set actual speed as maximum speed.  
**Bottom:** off.
- 5 Cruise control/Engine speed control  
**Top:** resume the set speed.  
**Bottom:** off.
- 6 Cruise Control/Engine speed control  
**Top:** set speed or adjust to higher speed.  
**Bottom:** set speed or adjust to lower speed.

- 1 Manual gearbox and **MX engine brake**.
  - Engine brake on/off (acceleration pedal usage overrules setting, gear changing not).
  - Variable vehicle speed limiter set/off.
  - Cruise Control/Engine speed control set/resume/off.
- 2 Manual gearbox and **Intarder**.
  - 1/3, 2/3, full intarder operation.The optional MX engine brake integrated at full Intarder operation.



### Lighting switch

- 1 Parking and marker lights on.
- 2 Headlamps, parking and marker lights on.



### 1 AS-Tronic and MX engine brake.

- Engine brake on/off (accelerator pedal usage overrules setting, gear changing not).
- Auto/manual (use twice for search in manual).
- Shift up/down (one click - one gear, double click – two gears).

### 2 AS-Tronic and Intarder.

- AS-Tronic use similar.
- 1/3, 2/3, full intarder operation.



### Automated gearbox

- N Neutral.
- D Drive.
- R Reverse.
- Forward/reverse manoeuvring positions (adjusted gas throttle settings for slow, flowing movement. Limited torque/rev and clutch slip).



### Manual gearbox

H-pattern 4 low range, 4 high range:

- 1 (Pre)select range at front side gearlever.
- 2 Half ranging (splitting) at the side of the gearlever.



## Heating & ventilation

- 1 Fan speed.
- 2 Air distribution.
- 3 Air temperature.  
Set temperature is thermostatically controlled by the ATC (optional).



## Centre console

- 1 Flasher hazard warning lights.
- 2 Main switch.
- 3 ASR (slightly more traction at low speed, by allowing wheel slip).
- 4 Pos 1: night light (no reflections whilst driving).  
Pos 2: interior light.
- 5 USB and LAN plug DAF Telematics.
- 6 Deactivating reversing buzzer.
- 7 Auxiliary cab heater.
- 8 Locking & unlocking co-drivers door.
- 9 Interior light co-driver side.



**Dashboard panel (left)**

- 1 Work lamp/cargo lift.
- 2 Headlamp height adjustment.
- 3 Front/rear fog lights.
- 4 Interior light off.  
(all off and remain off).



**Dashboard panel (right)**

- 5 Instrument lighting dimming.
- 6 Gearbox PTO 2.
- 7 Gearbox PTO 1.
- 8 Lifting trailing axle.



**Control panel**

- 1 Resume normal driving height (air suspension).
- 2 Deactivating ACC (Adaptive Cruise control).
- 3 Set distance ACC.
- 4 Third brake integration (off only when noise of retarder and/or MX engine brake is unacceptable).
- 5 Cross-axle differential lock.
- 6 Traction control (load transfer to driven axle)/manouvring height FT-LD.
- 7 Airconditioning.
- 8 Recirculation flap; use short periods of time only.
- 9 Hill start aid.
- 10 Lane Departure Warning System (LDWS).

# *Getting the most out of your XF105*



## **1. Pay attention to your driving style**

Anticipate; avoid unnecessary braking; drive constantly. 1 start from standstill to 80 km/h uses 0.75 l diesels.

- When no throttle is given, drive in the highest gear (low internal resistance).
- Accelerating quickly uses fuel unnecessarily.
- Release throttle in time, use the energy and let the mass work for you. (40 tons of moving vehicle represents a lot of energy).
- When throttle is released, the fuel consumption is zero.
- Taking a regular trip during daytime and in morning traffic: up to 10% difference in fuel consumption.
- Taking a regular trip in both summer and winter: up to 11% difference in fuel consumption.

# *What can you do as a driver for the environment?*

## **2. Stay in the green zone**

Drive in the green zone of the rev counter, also when accelerating and driving up gradients.

- On level roads, ease off the accelerator to let the AS-Tronic gearbox change earlier, or change gear manually.
- Change gear as early as possible. Drive in the highest possible gear.
- Full throttle: 1,050-1,350 rpm\*.
- Partial engine load stay at the bottom of the green band.
- Tractive force at 1,400 rpm is the same as at 1,000 rpm, resulting in high driving comfort at low revs.

\* rpm = revolutions per minute = engine revs

## **3. Prevent waste**

Don't accelerate unnecessarily and don't leave the engine ticking over unnecessarily.

- Even a fuel-efficient MX engine uses 1.6 litres of diesel fuel an hour just ticking over.

Additional equipment have an impact as well:

- Auxiliary lighting or other electrical equipment: 1%-3%.
- The airconditioning consumes: 2%.
- Auxiliary lights and bars on front: 3%-10%.

## **4. Think about your speed**

Most speed regulators are set at 89 km/h. But that doesn't mean you always have to drive at 89 km/h. Each 1 km/h slower = 1% lower fuel consumption. If you drive at 85 km/h maximum, you will save 5% fuel. That's as much as 1,500 litres or more per annum! This means not only lower costs, but lower CO<sub>2</sub> emissions.

## **5. Keep your truck in top condition**

An airmanagement kit account for approx. 10% of the overall fuel consumption.

- Check the roof spoiler: every 6 cm to low/high = 0.6% higher fuel consumption.
- Cover the load, get straps done up tight; if possible, avoid resistance with the load or equipment.

- Ensure that the tarpaulin is stretched taut. Flapping tarpaulins cost fuel and cause unnecessary noise.

Low tyre pressure (at 6.4 bar instead of 8.6 bar) results in higher fuel consumption by up to 5% and tyre wear by up to 25%. Check the pressures at least once per month.

- Incorrect axle alignment (tractor and semi-trailer/trailer) can impact consumption by up to 3%.

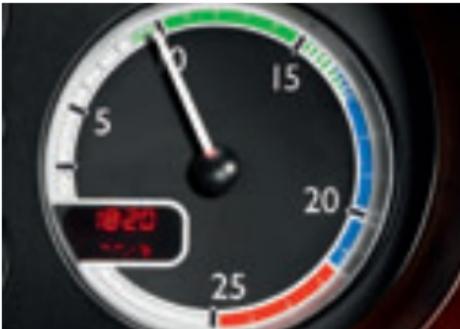
And naturally keep the truck or combination in top condition by timely and qualified maintenance by an approved DAF service workshop. Optimum lubrication and tuning result in a 3% to 5% improvement in fuel economy.

## **Engine**

**The MX engine in your XF105 offers:**

- Max. tractive force from as low as 1,000 and up to 1,410 rpm.
- Maximum output already at 1,500 rpm.

**Optimum fuel economy is reached in general between 1.000 and 1.400 rpm (green band).**



## **Engine revs**

**Accelerating laden on level ground:**

- Change full gear at 1,400 rpm.
- Change half a gear at 1,250 rpm.
- On a slope: some 100 rpm more.

**Driving with optimum fuel economy:**

- At full throttle: 1,050-1,350 rpm.
- If not: close to 1,000 rpm.



## **Driving performance**

**Putting the XF105's power to work in a fuel-conscious way.**

**The 3 basic rules:**

Use as little energy as possible to get the vehicle up to speed.

- Select appropriate gear.

Rate the energy required.

- Do I really need to accelerate that much in this situation?

Use the vehicle speed.

- 40 tons at speed is a lot of energy; make optimal use of that vehicle energy.

## **Gearbox**

**Manual gearbox; 16 gear**

Gear selection advice (laden, on the level):  
2L-4L-5L-6L-7L-7H-8L-8H

**AS-Tronic, 12 gears**

Automated gear changing based on:

- Vehicle weight.
- Driving resistance.
- Throttle position.

You don't have to, but over-riding the shifting is always possible:

- Change gear up at lower engine speeds.
- Hold the gear (driver's judgement).

Using kick-down on the throttle will achieve higher engine revs but results in higher fuel consumption with only a limited increase in performance:

- The kick-down is to be used very rarely.

## **Driving steadily**

Driving on the level.

- Drive in the highest possible gear (lowest possible revs).
- Keep your speed constant (use the cruise control system).
- Keep your distance (determine your own performance).
- Bring the vehicle back to cruising speed using the throttle before pressing the RES button.

### **Giving throttle:**

- In the low group, only partial throttle.
- In the high group, full throttle to required speed.

## **Driving on a slope**

### **Hold speed at the start of the slope:**

- Throttle up to full load in time.
- Don't change gear if your engine "holds its speed" between 1,050-1,350 rpm.
- Change down at 1,050 rpm:
- Change by a full gear if revs drop quickly.
- Change by half a gear if revs drop slowly.

### **Change up:**

- If revs increase quickly, full gear at 1,500 rpm.
- If revs increase slowly, half a gear at 1,350 rpm.



## **Typical MX**

### **Making the most of the engine's benefits**

Optimum fuel economy at low revs.

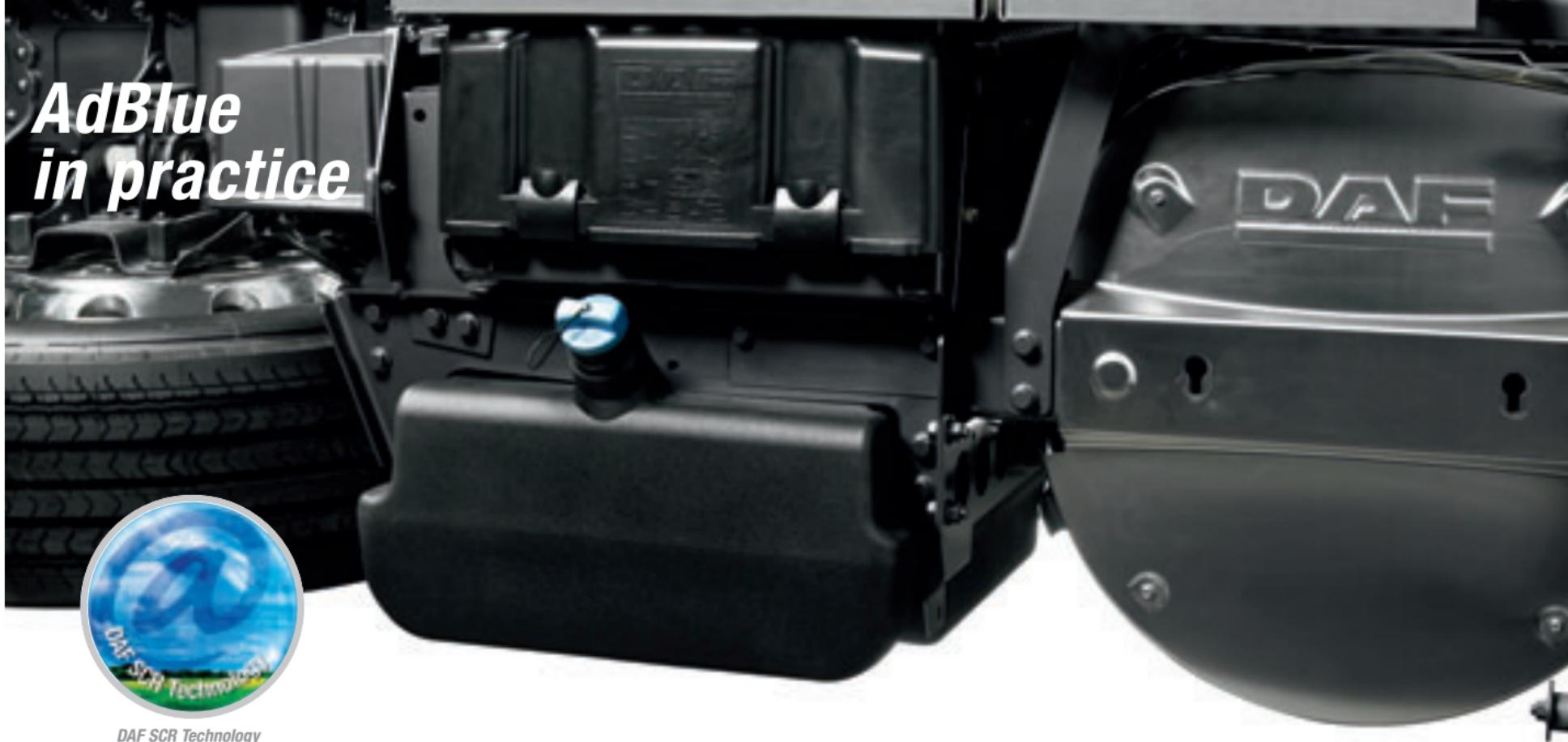
- At full engine load; 1,050-1,350 rpm.
- At low engine load; close to 1,000 rpm.

Maximum engine torque from 1,000 rpm up to 1,410 rpm.

Maximum engine power available from as low as 1,500 rpm onwards.

**No need to increase revs!**

# *AdBlue in practice*



*DAF SCR Technology  
for a bright future*

# **DAF SCR Technology: The road to a bright future**

## **Exhaust gases and environment**

The XF105 complies with the active European emission legislation norm Euro 5. This means that per kW performance, during one hour, not more than 2 gram of nitrogen oxide ( $\text{NO}_x$ ) originates from the exhaust and not more than 0.02 gram of soot (PM).

For complying with the EEV emission norm, all engines can optionally be equipped with a passive soot filter. This flow through filter doesn't need any maintenance neither has consequences on the operational vehicle costs.

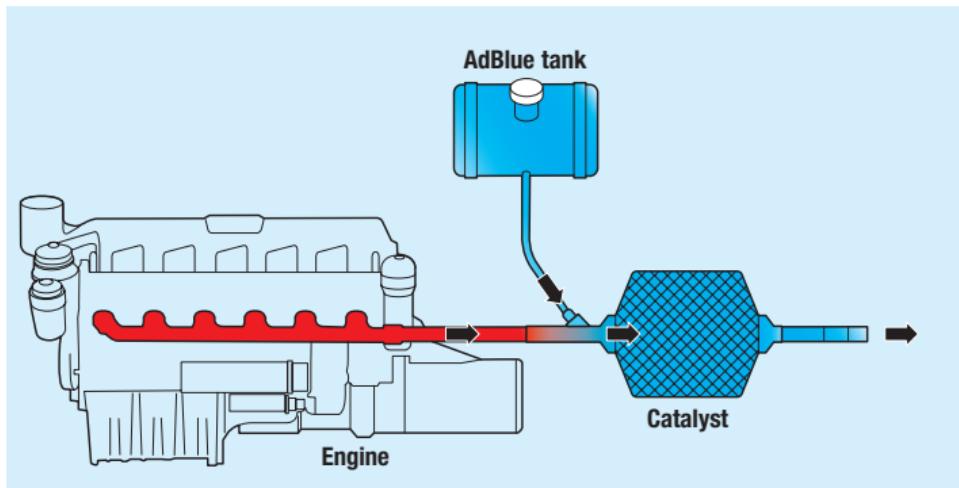
## **The DAF solution**

Realizing these low values, all DAF engines make use of high pressure fuel injection systems with precise injection timing. The resulting excellent combustion values radically prevent the formation of soot. DAF engines do not need soot filters.

The temperature and pressure during the combustion process cause chemical reactions between nitrogen and oxygen resulting in nitrogen oxide ( $\text{NO}_x$ ) dissipating in the exhaust stream.

To suppress the amount of nitrogen oxides ( $\text{NO}_x$ ) DAF engines benefit from SCR (Selective Catalytic Reduction). This technology 'purifies' the exhaust stream

by injecting in minute measured quantities an additive; AdBlue into the exhaust stream before reaching the muffler/catalyst. The result of this proces is to convert  $\text{NO}_x$  into harmless nitrogen (as in our surrounding air) and water vapor.



## ***AdBlue operating range***

AdBlue consumption is approximately 1,5 liter per 100 km. The tank capacity is in accordance with the vehicle's application. On the XF105 several AdBlue tank sizes are available from 45 litres up to 100 liters. Offering an operating range up to 6600 km.



## ***AdBlue***

AdBlue, a mixture of 32% urea (ammonia molecules) with 68% distilled water, is harmless, non toxic. There are already many petrol outlets offering AdBlue. AdBlue can also be delivered by the DAF Dealer in cans of 5 or 18 liters or in containers. And carrying a 5 litre can, can give you a 300 km reserve.

The AdBlue tank filling pipe is substantially smaller than that of the diesel tank and with its blue cap it is easily recognizable to prevent mistakes. Finally, the AdBlue filling pistol cannot be activated in the diesel tank filling pipe.

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### ***What will the driver notice?***

Basically nothing. As long as diesel and AdBlue are topped up in time the driver doesn't notice anything regarding the exhaust gas after treatment. The engine emissions are continually measured, when any malfunction occurs or if you've a low level of AdBlue, this is indicated on the dashboard display as warning.

When excess NO<sub>x</sub> is detected for any reason (for example due to malfunctioning or if you're out of AdBlue) the engine's torque will be restricted to encourage rectification. Vehicles above 15 tons are reduced in torque by as much as 40% as soon as it comes to a standstill. If the problem is caused by malfunction of the vehicle system, the power limit is only activated after 36 driving hours. Largely sufficient to get home.

As soon as the problem is fixed, full torque capacity is available again. The anomaly is registered in the vehicle system. This intervention is according to legislation for all commercial vehicles and regardless of brand or type.



## Possible AdBlue display warnings

- 1. AdBlue level low:** You have some 10% AdBlue (approx 250 to 500 km driving) left.
- 2. AdBlue tank empty:** You have no AdBlue left, power limit will apply after standstill.
- 3. Power limit:** Available engine torque is reduced until the problem is solved.
- 4. System warning:** A system malfunction occurs, only if excess NO<sub>x</sub> is detected power limit will apply after standstill.

*Enjoy your drive with your XF105*



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